



ATID Application Development Framework ReferenceManual –Finger Print Recognition

Revision: Ver. 0.1

Date: January, 2012

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Acronym

modules	descriptions
AADF	ATIDApplication Development Framework
FPR	Finger Print Recognition

Revision History

Version	Date	Reason	Description	Author
0.1	2012/01/17	Draft		Y. J. CHO

1 .NET API Reference

1.1 Enumerations

1.1.1 FPR_RESULT

The result of a call to functions

- **FPR_RESULT_ALREADY_OPENED**
FPR device is already opened.
- **FPR_RESULT_FPR_AUTH_FAILURE**
Fingerprint authentication fails.
- **FPR_RESULT_COMMAND_FAILURE**
Failed to perform function.
- **FPR_RESULT_DEREGIST_FAILURE**
Fail to delete registered fingerprint.
- **FPR_RESULT_INVALID_ARGS**
Invalid parameter.
- **FPR_RESULT_INVALID_DEVICE**
FPR device is not equipped.
- **FPR_RESULT_NOT_EXIST_ID**
Not existing ID
- **FPR_RESULT_NOT_OPENED**
Call function without Open
- **FPR_RESULT_OUTOFMEMORY**
Failed to assign resource.
- **FPR_RESULT_REGIST_FAILURE**
Fingerprint register fails.
- **FPR_RESULT_SUCCESS**
Function executed successfully.
- **FPR_RESULT_UNSUPPORTED**
Unsupported command.
- **FPR_RESULT_STATUS_IS_NOT_IDLE**
Fingerprint authentication device is executing other commands
- **FPR_RESULT_FAILURE**
Failed to perform function.

1.1.2 FPR_CMD

The type of Command mode set when calling ReadResult function.

- **FPR_CMD_REGISTRATION**

Used to register new fingerprints and read the results.

- **FPR_CMD_AUTHENTICATION**

Used to perform fingerprint authentication and read the results.

1.2 Methods

1.2.1 Open

Open fingerprint authentication device and allocate system resources.

```
FPR_RESULT Open();
```

Parameters

None

Return Values

FPR_RESULT_SUCCESS will be returned, if performed successfully.

1.2.2 Close

Deallocate system resources and close fingerprint authentication device

```
FPR_RESULT Close();
```

Parameters

None

Return Values

FPR_RESULT_SUCCESS will be returned, if performed successfully.

1.2.3 StartRegistration

Convert fingerprint authentication device into standby fingerprint authentication , and register fingerprint on ID scanning fingerprint.

```
BOOL StartRegistration(  
    ByteId  
)
```

Parameters*nId*

ID value(1 ~ 9) which will be registered in the fingerprint recognition device

Return Values

FPR_RESULT_SUCCESS will be returned, if performed successfully.

Notes

If successful, you can see if the registered ID can be read, using ReadResult function.

You can perform deletion with a registered ID value, and when you attempt to authenticate, you will receive the registration ID value

1.2.4 DeRegister

Remove ID which is registered in fingerprint authentication device.

```
FPR_RESULTDeRegister (  
    bytenId,  
);
```

Parameters*nId*

ID(1~9, 0x3A) that will be deleted in fingerprint authentication device.

Return Values

FPR_RESULT_SUCCESS will be returned, if performed successfully.

Notes

You must use ID values(1~9) registered as function of StartRegistraion, and when you delete all the entire ID, input 0x3A.

1.2.5 StartAuthenticate

Convert fingerprint authentication device into standby fingerprint authentication, and attempt to authenticate scanning the fingerprint.

```
FPR_RESULTStartAuthenticate();
```

Parameters*None***Return Values**

FPR_RESULT_SUCCESS will be returned, if performed successfully.

Notes

If performed successfully, ID value authenticated using ReadResult function will be Read.

That ID value is one of the values(0~9) registered as StartRegistration function.

1.2.6 GetIdCount

Read the number of ID registered in Fingerprint authentication device.

```
FPR_RESULTGetIdCount (  
    ref byte nIdCount  
);
```

Parameters

nIdCount

Number of ID registered in Fingerprint authentication device.

Return Values

FPR_RESULT_SUCCESS will be returned, if performed successfully.

1.2.7 Cancel

cancel the performing fingerprint enrollment and fingerprint authentication tasks.

```
FPR_RESULTCancel ();
```

Parameters

None

Return Values

FPR_RESULT_SUCCESS will be returned, if performed successfully.

1.2.8 ReadResult

Read the ID value of the performed fingerprint enrollment and the fingerprint authentication tasks

```
FPR_RESULTReadResult (  
    byte nCommand  
    ref byte nId  
);
```


Parameters*nCommand*

Command to be transmitted to fingerprint recognition device.

nId

ID value that the task has been complete.

Return Values

FPR_RESULT_SUCCESS will be returned, if performed successfully.

Notes

When you call the check StratRegistration function and check the ID, set nCommand as FPR_CMD_REGISTRATION and when you call StartAuthentication function and check the ID, set as the FPR_CMD_AUTHENTICATION.

1.2.9 GetFirmwareVersion

Read Firmware version of Fingerprint authentication device.

```
FPR_RESULTGetFirmwareVersion (  
    ref byte nVersion  
);
```

Parameters*nVersion*

Firmware version of Fingerprint authentication device.

Return Values

FPR_RESULT_SUCCESS will be returned, if performed successfully.

2 C/C++ API Reference

2.1 Enumerations

2.1.1 FPR_RESULT

The result of a call to functions

- **FPR_RESULT_ALREADY_OPENED**
FPR device is already opened.
- **FPR_RESULT_FPR_AUTH_FAILURE**
Fingerprint authentication fails.
- **FPR_RESULT_COMMAND_FAILURE**
Failed to perform function.
- **FPR_RESULT_DEREGIST_FAILURE**
Fail to delete registered fingerprint.
- **FPR_RESULT_INVALID_ARGS**
Invalid parameter.
- **FPR_RESULT_INVALID_DEVICE**
FPR device is not equipped.
- **FPR_RESULT_NOT_EXIST_ID**
Not existing ID
- **FPR_RESULT_NOT_OPENED**
Call function without Open
- **FPR_RESULT_OUTOFMEMORY**
Failed to assign resource.
- **FPR_RESULT_REGIST_FAILURE**
Fingerprint register fails.
- **FPR_RESULT_SUCCESS**
Function executed successfully.
- **FPR_RESULT_UNSUPPORTED**
Unsupported command.
- **FPR_RESULT_STATUS_IS_NOT_IDLE**
Fingerprint authentication device is executing other commands
- **FPR_RESULT_FAILURE**
Failed to perform function.

2.2 Constants

2.2.1 FPR_CMD_REGISTRATION

Used to register new fingerprints and read the results using ReadResult function.

- #define **FPR_CMD_REGISTRATION** 1

2.2.2 FPR_CMD_AUTHENTICATION

Used to perform fingerprint authentication and read the results using ReadResult function.

- # define **FPR_CMD_AUTHENTICATION** 2

2.3 Methods

2.3.1 FingerPrintOpen

Open fingerprint authentication device and allocate system resources.

FPR_RESULT Open();

Parameters

None

Return Values

FPR_RESULT_SUCCESS will be returned, if performed successfully.

2.3.2 FingerPrintClose

Deallocate system resources and close fingerprint authentication device

FPR_RESULT Close();

Parameters

None

Return Values

FPR_RESULT_SUCCESS will be returned, if performed successfully.

2.3.3 FingerPrintStartRegistration.

Convert fingerprint authentication device into standby fingerprint authentication , and register fingerprint on ID scanning fingerprint.

BOOLStartRegistration(
 UCHARID
)

Parameters

ID

ID value(1 ~ 9) which will be registered in the fingerprint recognition device

Return Values

FPR_RESULT_SUCCESS will be returned, if performed successfully.

Notes

If successful, you can see if the registered ID can be read, using ReadResult function.

You can perform deletion with a registered ID value, and when you attempt to authenticate, you will receive the registration ID value

2.3.4 FingerPrintDeRegister

Remove ID which is registered in fingerprint authentication device.

```
FPR_RESULTDeRegister (  
    UCHARID  
);
```

Parameters

nId

ID(1~9, 0x3A) that will be deleted in fingerprint authentication device.

Return Values

FPR_RESULT_SUCCESS will be returned, if performed successfully.

Notes

You must use ID values(1~9) registered as function of StartRegistraion, and when you delete all the entire ID, input 0x3A.

2.3.5 FingerPrintStartAuthenticate

Convert fingerprint authentication device into standby fingerprint authentication, and attempt to authenticate scanning the fingerprint.

```
FPR_RESULTStartAuthenticate();
```

Parameters

None

Return Values

FPR_RESULT_SUCCESS will be returned, if performed successfully.

Notes

If performed successfully, ID value authenticated using ReadResult function will be Read.

That ID value is one of the values(0~9) registered as StartRegistration function.

2.3.6 FingerPrintGetIdCount

Read the number of ID registered in Fingerprint authentication device.

```
FPR_RESULTGetIdCount (
    UCHAR*pIdCount
);
```

Parameters

pIdCount

Number of ID registered in Fingerprint authentication device.

Return Values

FPR_RESULT_SUCCESS will be returned, if performed successfully.

2.3.7 FingerPrintCancel

cancel the performing fingerprint enrollment and fingerprint authentication tasks.

```
FPR_RESULT Cancel ();
```

Parameters

None

Return Values

FPR_RESULT_SUCCESS will be returned, if performed successfully.

2.3.8 FingerPrintReadResult

Read the ID value of the performed fingerprint enrollment and the fingerprint authentication tasks

```
FPR_RESULTReadResult (
    UCHARCommand
    UCHAR*pID
);
```

Parameters

Command

Command to be transmitted to fingerprint recognition device.

pId

ID value that the task has been complete.

Return Values

FPR_RESULT_SUCCESS will be returned, if performed successfully.

Notes

When you call the check StratRegistration function and check the ID, set Command as FPR_CMD_REGISTRATION and when you call StartAuthentication function and check the ID, set as the FPR_CMD_AUTHENTICATION.

2.3.9 FingerPrintGetFirmwareVersion

Read Firmware version of Fingerprint authentication device.

```
FPR_RESULTGetFirmwareVersion (  
    UCHAR*pVersion  
);
```

Parameters

pVersion

Firmware version of Fingerprint authentication device.

Return Values

FPR_RESULT_SUCCESS will be returned, if performed successfully.